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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/606,251

06/25/2003

San-Chih Wu

370.7873USU

4496

7590

11/03/2004

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EXAMINER

TSIDULKO, MARK

ART UNIT

PAPER NUMBER

2875

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/606,251

Applicant(s)

WU, SAN-CHIH

Examiner

Mark Tsidulko

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8, 9 and 13-15 is/are rejected.
- 7) ☒ Claim(s) 7 and 10-12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 4, 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Bousfield (US 6,210,013).

Referring to Claim 1 Bousfield discloses (Figs. 6, 9) a shelf member [62] formed as a light guide panel having a top face, a bottom face and a first edge face (edge face connected to the light source housing), a shelf support (not indicated by number, see Fig.9), an irradiation unit (not indicated by number), shroud (light source housing) and a light source [52] mounted on the shroud and confronting the first edge face in order to produce light that incident on the first edge face.

Referring to Claims 3 and 4 Bousfield discloses (Fig.5) a plurality of light deflection parts [55] formed on the surface of the light guide panel (col.2, lines 17-29) and increasing in size from the first edge face in a direction toward the second edge face of the panel.

Referring to Claim 6 Bousfield discloses (Fig.6) a longitudinal shroud (light source housing) having an upper plate portion, a lower plate portion, a lateral plate portion interconnecting top and lower portions and groove between top and lower portions to receive a

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first edge face of the light guide panel [62], the light source [52] extending between the first edge face and the lateral plate portion.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bousfield (US 6,210,013) in view of Ciupke et al. (US 5,461,547).

Bousfield discloses the instant claimed invention except for a reflection layer disposed on an edge face opposite to the first edge face of the light guide panel.

Ciupke et al. disclose (Fig.2) a light guide [14] having a reflective layer [29] disposed at the edge of the panel and used in order to increase the efficiency of conversion of the light from the light source (col.3, lines 13-16).

It would have been obvious to one having ordinary skill in the art, at the time the invention was made, to provide the reflective layer, as taught by Ciupke et al., for the light guide panel of Bousfield in order to increase the efficiency of conversion of the light emitted from the light source.

Claims 5, 14, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bousfield (US 6,210,013) in view of Liao (US 6,789,923).

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Referring to Claims 5 and 14 Bousfield discloses (col.2, lines 25-28) that the light guide panel has a diffusing layer.

Bousfield discloses the instant claimed invention except for a top plate overlying the diffusing sheet.

It is understood that since the light guide plate is used as a shelf, the top surface of the guide plate having diffusing layer should be protected from damages that may be made by articles located on the shelf.

Liao discloses a backlight module having a protection plate [15] located above a diffusing layer [14] disposed on a top of the light guide plate [13].

Referring to Claim 15 (Fig.5) a plurality of light deflection parts [55] formed on the surface of the light guide panel (col.2, lines 17-29) and increasing in size from the first edge face in a direction toward the second edge face of the panel.

It would have been obvious to one having ordinary skill in the art, at the time the invention was made, to provide the protection plate, as taught by Liao, for the device of Bousfield in order to protect the surface of the light guide plate from damage.

Claims 8, 9 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bousfield (US 6,210,013) in view of Dasher (US 5,361,599).

Bousfield discloses the instant claimed invention except for upright shelf support members and a pair of horizontal support elements having front arm portions for supporting a bottom face of the light guide plates.

Dasher discloses (Fig.2) a support system including an upright support members [40-42] having a plurality of anchor holes, a horizontal support elements [44] having a rear end plate portions mounted on upright support members and front arm portion and a plurality of shelf members mounted on the shelf support one above the other. The fasteners (hooks) are provided for fastening to the anchor holes (Abstract).

Dasher's support system allows to obtain a plurality of different positions of the shelves, whereas support members of Bousfield allow to obtain only two different positions.

It would have been obvious to one having ordinary skill in the art, at the time the invention was made, to provide the support system of Dasher for the device of Bousfield, in order to increase a plurality of different positions of the shelves and make a refrigerator more convenient in use.

Allowable Subject Matter

Claims 7, 10-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance:

Referring to Claim 7 the prior art of record fails to show a self-illuminating display shelf wherein a lower plate portion of the shroud has a receiving space formed therein and a power unit received in this space.

Referring to Claim 10 the prior art of record fails to show a self-illuminating display shelf wherein shelf support has a plurality of hanging strings.

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Claims 11 and 12 are objected as claims depended on claim 10.

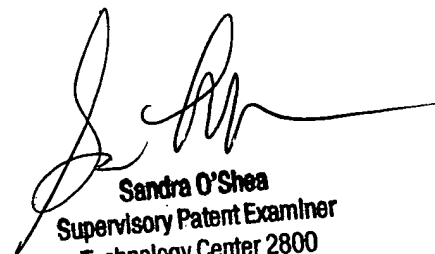
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Tsidulko whose telephone number is (571)272-2384. The examiner can normally be reached on 8 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for all communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M.T.
October 28, 2004


Sandra O'Shea
Supervisory Patent Examiner
Technology Center 2800